Abstract

A magnetic transducer with a write head with one or more coil layers and a pedestal pole piece on P1 is disclosed. In one embodiment the first and second coils and the P1 pedestal are formed on essentially planarized surfaces which allows maximum precision to be obtained from the photolithography. The P1 pedestal defines the zero throat height (ZTH) with a 90 degree apex angle which cuts down flux leakage and improves efficiency. The P1 pedestal allows the coil turns to be located close to the write gap to increase the magnetic efficiency. The P1 pedestal also acts as a domain control element. The first and second coils are disposed on opposite sides of the gap layer. The write head preferably has upper and lower back flux closure pieces in contact with the pole pieces to complete the back of the yoke. Various combinations of these features allow heads according to the invention to be made with a very short yoke with resulting improved efficiency. In alternative embodiments the coil below the gap layer may be omitted and/or an additional coil above the gap layer may be added.